

# FIG. 1A

ATGGATTTCGGACTGGCCCTCCTGTGGGGGGCTTCTGGGGCTCCTCCTCGGCCAGTCCCTCCAGGTGAAGCCCTGCA 80  
 M D F G L A L L L A G L L G L L L G Q S L Q V K P L Q  
 GGTGGAGCCCCCGAGCCGGTGGTGGCCGTGGCCCTTGGCGCCCTCGCGCCAGCTCACCTGCCGCCCTGGCCTGCCGGGACC 160  
 V E P P E P V A V A L G A S R Q L T [C] R L A [C] A D  
 GCGGGCCTCGGTGCAGTGGCGGGCCTGGACACCAAGCCTGGGCGCGGTGCAGTCGGACACGGGCCGCAGCGTCTCACC 240  
 R G A S V Q W R G L D T S L G A V Q S D T G R S V L T  
 GTGGCAACGCCTCGTGTGGGGCCGGGACCCGCGTGTGGTGGCTCCTGCGGGGCCGACCTTCCAGCACACCGT 320  
 V R [N A S] L S A A G T R V [C] V G S [C] G G R T F Q H T V  
 GCAGTCCCTTGTGTACGCCTTCCCGGACCAAGCTGACCGTCTCCCCAGCAGCCCTGGTGCCTGGTGACCCGGAGGTGCCCT 400  
 Q L L V Y A F P D Q L T V S P A A L V P G D P E V A  
 GTACGGCCCAAAAGTCACGCCCGTGGACCCCAACCGCTCTCCTTCTCCCTGCTCGTGGGGGCCAGGAACCTGGAGGGG 480  
 [C] T A H K V T P V D P N A L S F S L L V G G Q E L E G  
 GCGAAGCCCTGGGCCCCGAGGTGCAGGAGGAGGAGGCCCCAGGGGACGAGGACGTGCTGTTCAGGGTGACAGA 560  
 A Q A L G P E V Q E E E P Q G D E D V L F R V T E  
 GCGTGGCGGCTGCCGCCCTTGGGACCCCTGTCCCGCCCGCCCTCTACTGCCAGGCCACGATGAGGCTGCCTGGCTGG 640  
 R W R L P P L G T P V P P A L Y [C] Q A T M R L P G L

# FIG. 1B

AGCTCAGCCACCGCCAGGCCATCCCCGTCCTGCACAGCCCCGAGCCTCCCCGGAGCCTCCCGACACACACCTCCCCGGAGCCT	720
E L S H R Q A I P V L H S P T S P E P P D T T S P E P	
CCCAACACACCTCCCCGGAGTCTCCCGACACACCTCCCCGGAGTCTCCCGACACACCTCCCGAGGAGCCTCCCCGACAC	800
P <span>N T T</span> S P E S P D T T S P E S P D T T S Q E P P D T	
CACCTCCCCGGAGCCTCCCCGACACACCTCCCGAGGAGCCTCCCGACACACCTCCCCGGAGCCTCCCCGACAAAGACCTCCC	880
T S Q E P P D T T S Q E P P D T T S P E P P D K T S	
CGGAGCCCCGCCCCCAGCAGGGCTCCACACACACCCCCCAGGAGCCAGGCTCCACAGGACTCGCCGCCCTGAGATCTCC	960
P E P A P Q Q G S T H T P R S P G S T R T R R P E I S	2/27
CAGGCTGGGCCCCACGCAGGGAGAAGTGATCCCAACAGGCTCGTCCAAACCTGCGGGTGACCAAGCTGCCCGGGCTCTGTG	1040
Q A G P T Q G E V I P T G S S K P A G D Q L P A A L W	
GACCAGCAGTGCGGTGCTGGACTGCTGCTCCTGGCCCTTGCCACACGTATCACCTCTGGAACGCTGCCGGCACCTGGCTG	1120
T S S A V L G L L L A L P T Y H L W K R C R H L A	
AGGACGACACCCACCCAGCTTCTCTGAGGCTTCTGCCCCCAGGTGTGCGCCCTGGGTTAAGGGGGACCGGCCAG	1200
E D D T H P P A S L R L L P Q V S A W A G L R G T G Q	
GTCGGGATCAGCCCCCTCCTGAGTGGCCAGCCCTTCCCCCTGTGAAAGCAAAATAGCTTGGACCCCTTCAAGTTGAGAACT	1280
V G I S P S	

# FIG. 1C

GGTCAGGGCAAACCTGCCCTCCCATTTCTACTCAAAGTCAATCCCCTCTGCTCACAGAGATGGATGCAATGTTCTGTGATTGCCCTCT 1360

TTGGAGAGCTCATCAGAAACTCAAAAGAAAGGCCACTGTTTGTCTCACCTACCCATGACCTGAAGCCCCCTCCCTGAGTGG 1440

TCCCCACCTTTCTGGACGGAACACAGTACTTTTACATACATTGATTCAATGTCTCACGTCTCCCCTAAAAATGCCGTAAGAC 1520

CAAGCTGTGCCCTGACCACCCCTGGGGCCCCGTGTCGTCAGGACCTCCTGAGGCTTTGGCAAATAAACCTCCTAAAAATGATAA 1600

AAAAAAAAAAAAAAAAAAAAA 1624

# FIG. 2A

ATGGAATTCGGACTGGCCCTCCTGTGCGGGGCTTCTGGGGCTCCTCCTCGGCCAGTCCCTCCAGGTGAAGCCCCCTGCA 80  
 M D F G L A L L A G L L G L L L G Q S L Q V K P L Q  
 GGTGGAGCCCCCGAGCCGGTGGTGGCCGTGGCGCCTTGGCGCCTCGGCCAGCTCACCTGCCGCCCTGGCCTGGCGGGACC 160  
 V E P P E P V A V A L G A S R Q L T [C] R L A [C] A D  
 GCGGGCCTCGGTGCAGTGGCGGGGCTGGACACCCAGCCTGGCGCGGTGCAGTCGGACACGGCGCAGCGTCCTCACC 240  
 R G A S V Q W R G L D T S L G A V Q S D T G R S V L T  
 GTGCGCAACGCCCTCGCTGTGCGGGCGCGGACCCGCGTGTGCGTGGGCTCCTGCGGGGCGGCACCTTCCAGCACACCGT 320  
 V R [N A S] L S A A G T R V [C] V G S [C] G G R T F Q H T V  
 GCAGCTCCTGTGTACGCCCTTCCCGGACCAAGTACCGTCTCCCCCAGCAGCCCTGGTGCCCTGGTGACCCCGAGGTGGCCT 400  
 Q L L V T A F P D Q L T V S P A A L V P G D P E V A  
 GTACGGCCACAAAGTCACGCCCGTGGACCCCAACGCGCTCTCCTTCTCCCTGCTCGTCGGGGGCCAGGAACCTGGAGGGG 480  
 [C] T A H K V T P V D P N A L S F S L L V G G Q E L E G  
 GCGCAAGCCCCGAGGTGCAGGAGGAGGAGGCCCCAGGGGACGAGGACGTGCTGTTCAGGGTGACAGA 560  
 A Q A L G P E V Q E E E E P Q G D E D V L F R V T E

FIG. 2B

640  
GCGCTGGCGGCTGCGCGCCCTGGGGACCCCTGTCCCGCCCGCCCTCTACTGCCAGGCCACGATGAGGCTGCCTGGCTTGG  
R W R L P P L G T P V P P A L Y C Q A T M R L P G L

720  
AGCTCAGCCACCGCAGGCCATCCCCGTCCTGCACAGCCCCGACCTCCCCGGAGCCTCCCGACACCCACCTCCCCGGAGTCT  
E L S H R Q A I P V L H S P T S P E P P D T T S P E S

800  
CCCGACACCACCTCCCCGGAGTCTCCCGACACACCCTCCCGAGGACCTCCCGACACACCTCCCGGAGCCTCCCGACAA  
P D T T S P E S P D T T S Q E P P D T T S P E P D K

880  
GACCTCCCCGGAGCCCGCCCCAGCAGGGCTCCACACACACCCCGAGGAGCCAGGCTCCACAGGACTCGCCGCCCTG  
T S P E P A P Q Q G S T H T P R S P G S T R T R R P

960  
AGATCTCCAGGCTGGGCCACGCAGGGAGAAGTGATCCCAACAGGCTCGTCCAAACCTGCGGGTGACCCAGCTGCCCGCG  
E I S Q A G P T Q G E V I P T G S S K P A G D Q L P A

1040  
GCTCTGTGGACCAGCAGTGCGGTGCTGGGACTGCTGCTCCTGGCCTTGCCCCACCTATCACCTCTGGAAACGCTGCCCGCA  
A L W T S S A V L G L L L A L P T Y H L W K R C R H

1120  
CCTGGCTGAGGACGACACCCACAGCTTCTGTAGGCTTCTGCCCCAGGTGTGCGCCTGGGCTGGGTTAAGGGGA  
L A E D D T H P P A S L R L L P Q V S A W A G L R G

# FIG. 2C

CCGGCCAGGTCGGGATCAGCCCCCTCCTGAGTGGCCAGCCCTTTCCCCCTGTGAAAGCAAAATAGCTTGGACCCCTTCAAGT 1200  
T G Q V G I S P S

TGAGAACTGGTCAGGGCAAACCTGCCTCCCATTTCTACTCAAAGTCATCCCTCTGTTCACAGAGATGGATGCATGTTCTGA 1280

TTGCCCTCTTTGGAGAAGCTCATCAGAAACTCAAAAGAGGCCACTGTTTGTCTCACCTACCCATGACCTGAAGCCCCCTCC 1360

CTGAGTGGTCCCCACCTTTCTGGACGGAACCACGTACTTTTACATACATTGATTCTCACGTCCTCCCTAAAAAATG 1440

6/27

CGTAAGACCAAGCTGTGCCCTGACCACCCCTGGGGCCCTGTCTCGTCAGGACCTCCTTGAGGCTTTGGCAAAATAAACCTCCTAA 1520

AATGAAAAAAAAAAAAA 1539

FIG. 3A

80	AGCATGGATCGGGGCTGGCCCTCCTGTGGCGGGGCTTCTGGGGCTCCTCCAGCCGGGCTGCGGCCAGTCCCTCCAGGT	
	<u>M D R G L A L L L A G L L G L L Q P G C G Q S L Q V</u>	
160	GAAAGCCCTGCAGGTGGAGCCCCCGGAGCCGGTGGTGGCCGTGGCCCTGGCGCCCTCTCGCCAGCTCACCTGCCGCCTGG	
	K P L Q V E P P F P V V A V A L G A S R Q L T <span>C</span> R L	
240	ACTGCGGACCGGGGCCACGGTGCAGTGGCGGGGCTGGACACAGCCTGGCGCGGCTGCAGTCGGACGGGGCCGC	
	D <span>C</span> A D R G A T V Q W R G L D T S L G A V Q S D A G R	
320	AGCGTCCTCACCGTGGCAACGCCCTCGCTGTGCGGCGCGGACCCGTGTGTGGGTCCCTGCGGGGGCCGCACCTT	
	S V L T V R N A S L S A A G T R V <span>C</span> V G S <span>C</span> G G R T F	
400	CCAGCACACCGTGGGCTCCTTGTGTAGCCCTTCCCGGACCCAGCTGACCATCTCCCCGGCAGCCCTGGTGCCTGGTGACC	
	Q H T V R L L V Y A F P D Q L T I S P A A L V P G D	
480	CGGAGGTGGCCTGTACGGCCCAAAAGTCACGCCCTGTGGACCCCAATGCGCTCTCCTTCTCCCTGCTCCTGGGGACCAG	
	P E V A <span>C</span> T A H K V T P V D P N A L S F S L L L G D Q	
560	GAACTGGAGGGGCCAGGCTCTGGGCCCCGAGGTGGAGGAGGAGGAGGCCCCACGAGGAGGAGGACGTGCTGTT	
	E L E G A Q A L G P E V E E E E E P Q E E E D V L F	

8/27

## FIG. 3B

640 CAGGGTGACAGAGCGCTGGCGGCTGCCGACCCCTGGCAACCCCTGTCTGCCCCGCGCTCTACTGCCAGGCCACGATGAGGC  
R V T E R W R L P T L A T P V I P A L Y C Q A T M R

720 TGCCTGGCTTGAGCTCAGCCACCGCAGGCCATCCCGTCTGCAAGGCCCGACCTCCCGGAGCCCCCGACACGACC  
L P G L E L S H R Q A I P V I H G P T S R E P P D T T

800 TCCCCGGAACCCGGCGCGACCTCCCCGGAGACCACCCCCCAGCAGGGCTCCACACACAGCCCCCAGGAGCCCCGGGCTC  
S P D P R A A T S P E T T P Q C G S T R S P R S P G S

880 TACCAGGACTTGCCCGCCCTGAGATCTCCCAGGCTGGGCCCCACGCAGGGAGAAAGTGATCCCCAACAGGCTCGTCCAAACCTA  
T R T C R P E I S Q A G P T Q G F V I P T G S S K P

960 CGGGTGACCAGCTGCCCCGGGCTCTGTGGACCAGCAGTGCCGGTGCTGGGACTGCTGCTCCTGGCTTTGCCACCTACCAC  
T G D Q L P A A L W T S S A V L G L L L L A I P T Y H

1040 CTCGTGAAACGTTGCCGGCACCTGGCTGAGGACGGCGCCACCCACAGCTTCTCTGAGTAGCCAGCCCTTCCCCCTGTG  
L W K R C R H L A E D G A H P P A S L S C P F P L .

1120 AAGGAAAATAGTTGACCCCTTCAAGCTGAGAACTGGTCGGGGCAACCTGCCTCCCATTTCTATTCAAAGTCATCGCT



# FIG. 3C

CTGGTCACAGAGGGACGCACATTCTGATTGCCCTCCTTTGGAAAGGCTCATCAGAAACTCAAAAGAAGTGATCGTTTG 1200

TCCCGCTACCCGTGACCTGGAAGCCCCCGCCGCTCGAGTGACCCCTGACTTCTGGACGGAACCAACGTACTTCTTA 1280

CATATATTGATTGTGCATATCTCCCTAAATGCGTAAACCAGCTGTGCCCCGACCACTTGGGCCCCCTGCCATCA 1360

GGACCTCCTGAGGCTTTGGCAAATAAACCTCCTAAAAAGGATAGAAACTGAAACTTGTGGCCGGCGGCTGGCTCAAAGCC 1440<sup>9/27</sup>

TGTAATCCCAGCACTTTGGGAGGCCGAGGTGGGTGGATCACGAGGTCAGGAGATCGAGACCATCCTGGCTAACCCGTGAA 1520

ACCCCGTCTCTACTAAAAAATACAAAAATTAGCCGGGAGCGGTGGCGGGCGCCTGTAGTCCCAGCTACTCGGGAGGCTG 1600

AGGCAGGAGATGGCGTGAACCCGGGAGCGGAGCTTGCAGTGAGCTGAGATCCGGCCACTGCACTCCAGCCTGGGGAC 1680

AGAGCGAGACTCCGTCTCAAAAAAATAAAAAAATAAAAAA 1721

10/27

FIG. 4A

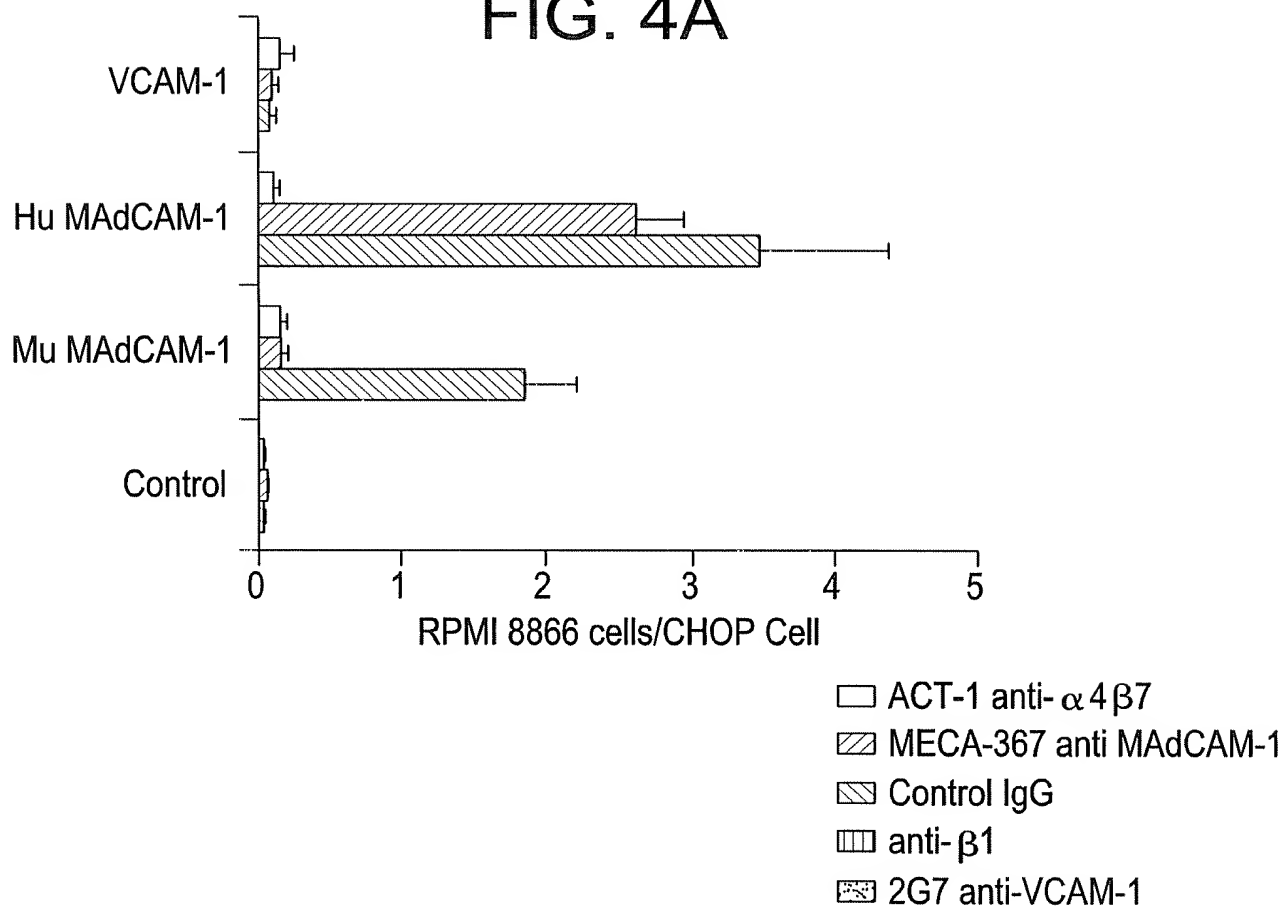
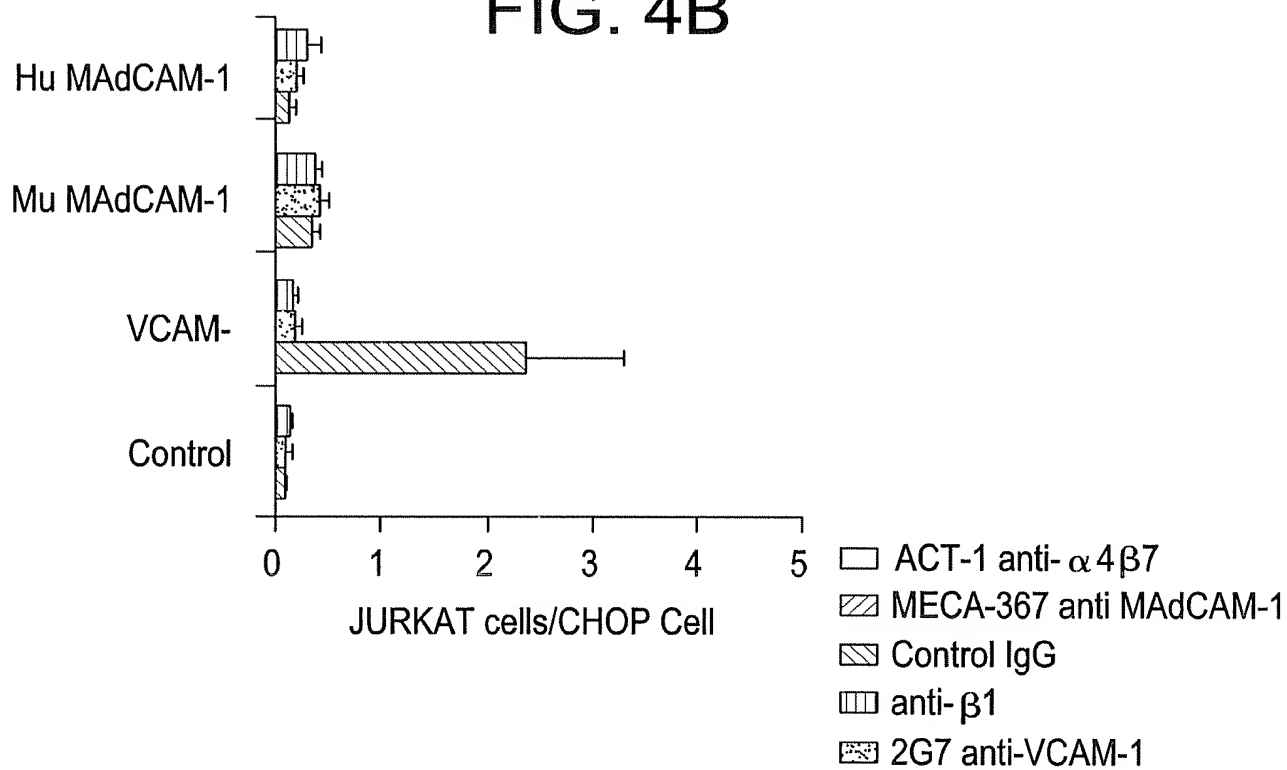
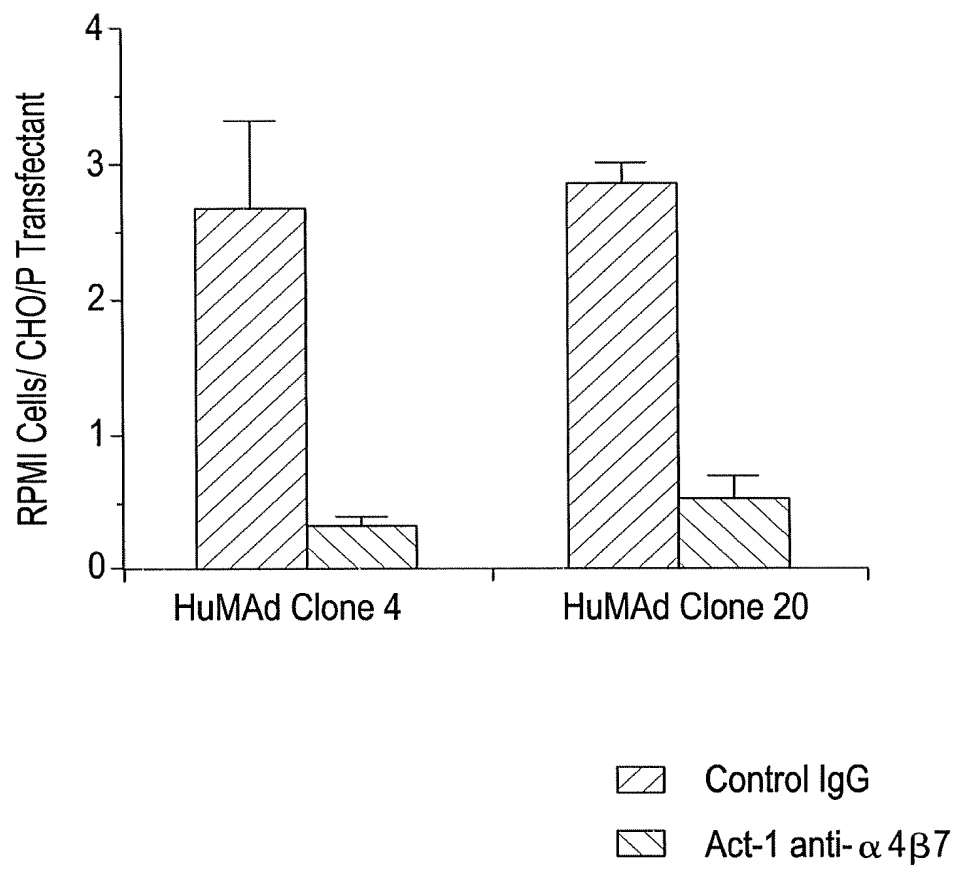


FIG. 4B



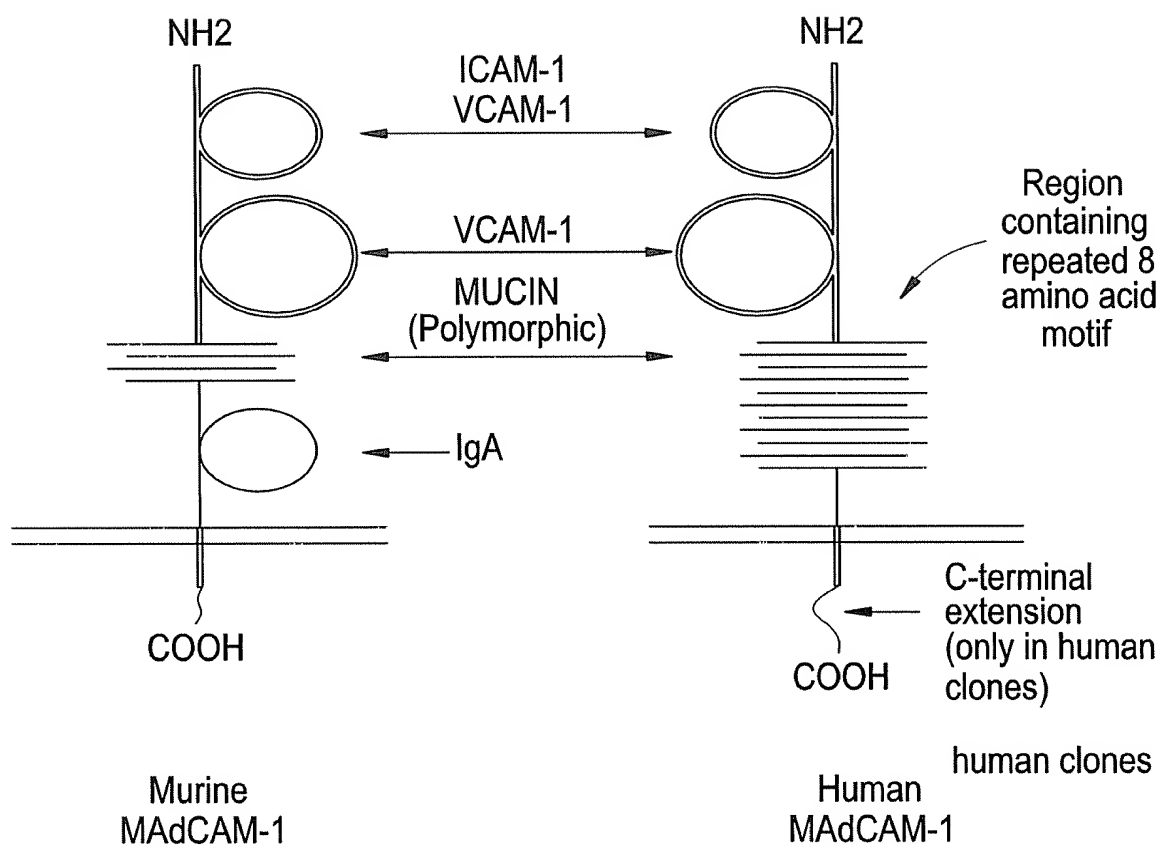
11/27

FIG. 5



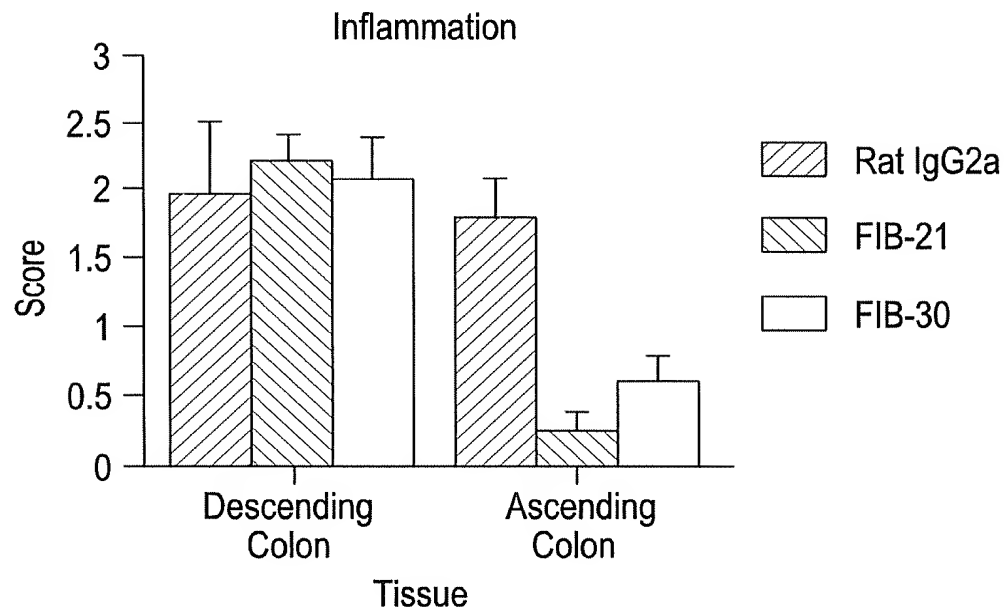
12/27

FIG. 6

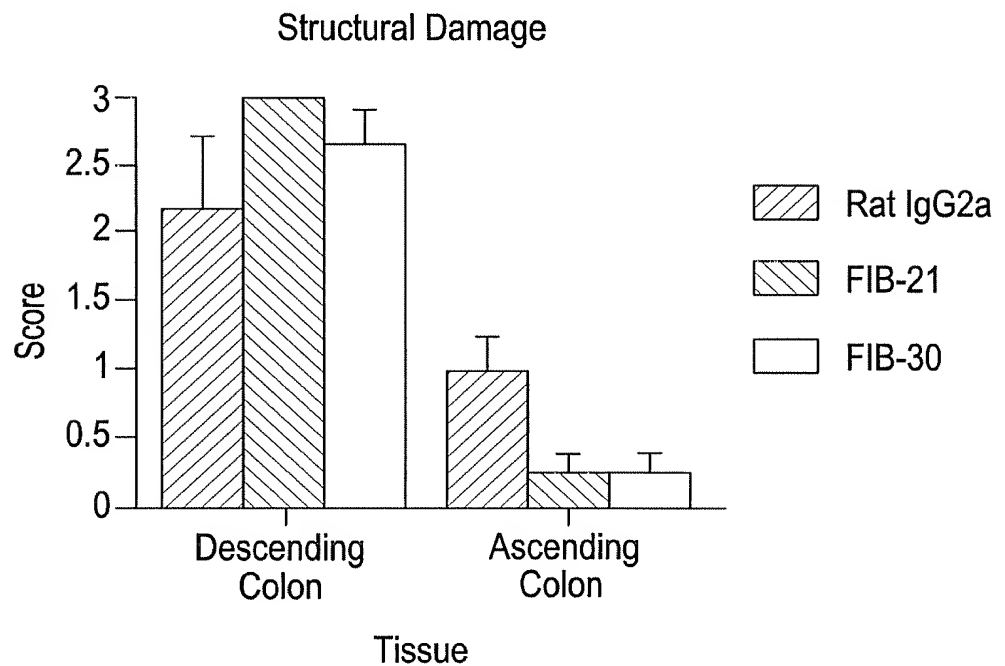


13/27

**FIG. 7A**



**FIG. 7B**



14/27

FIG. 8

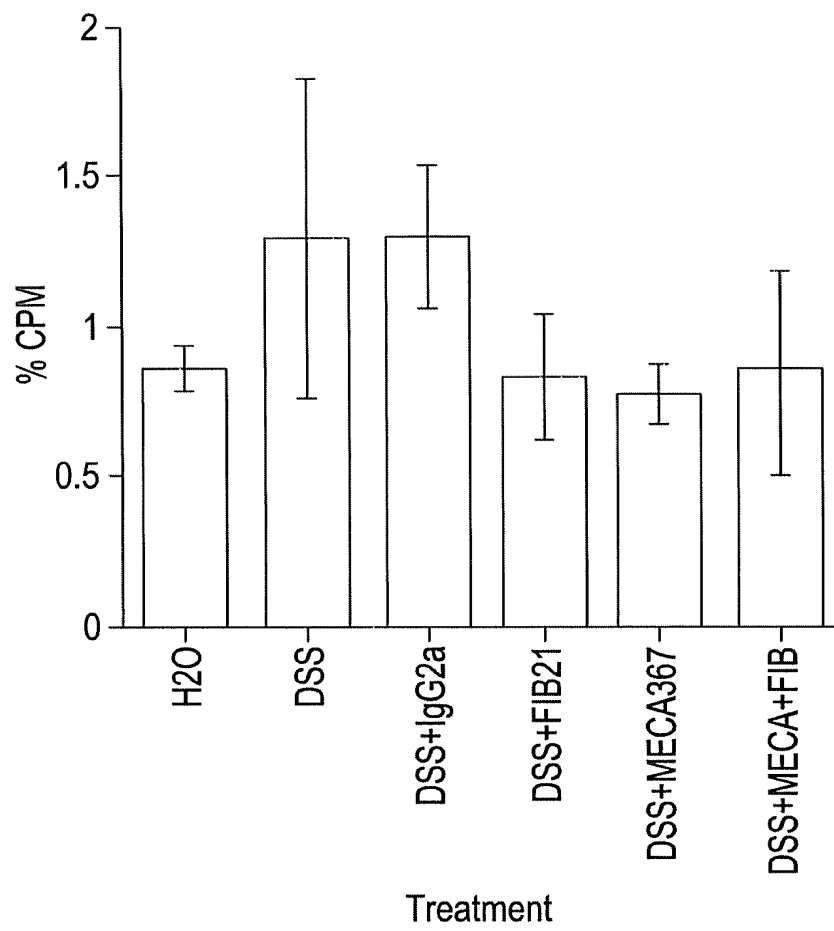


FIG. 9

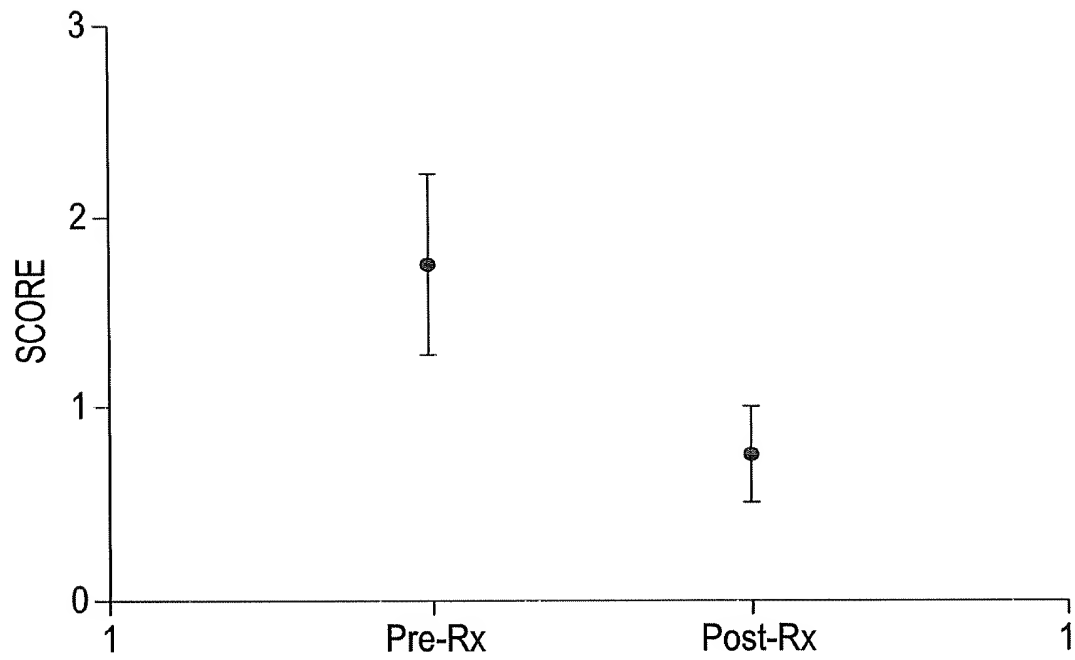
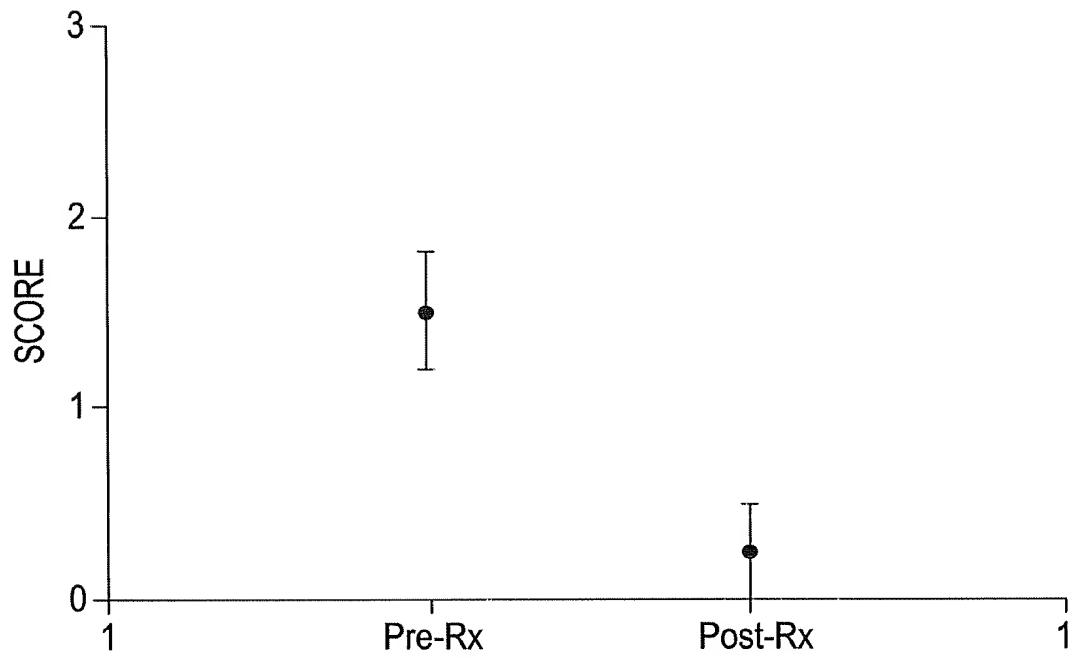


FIG. 10



16/27

FIG. 11

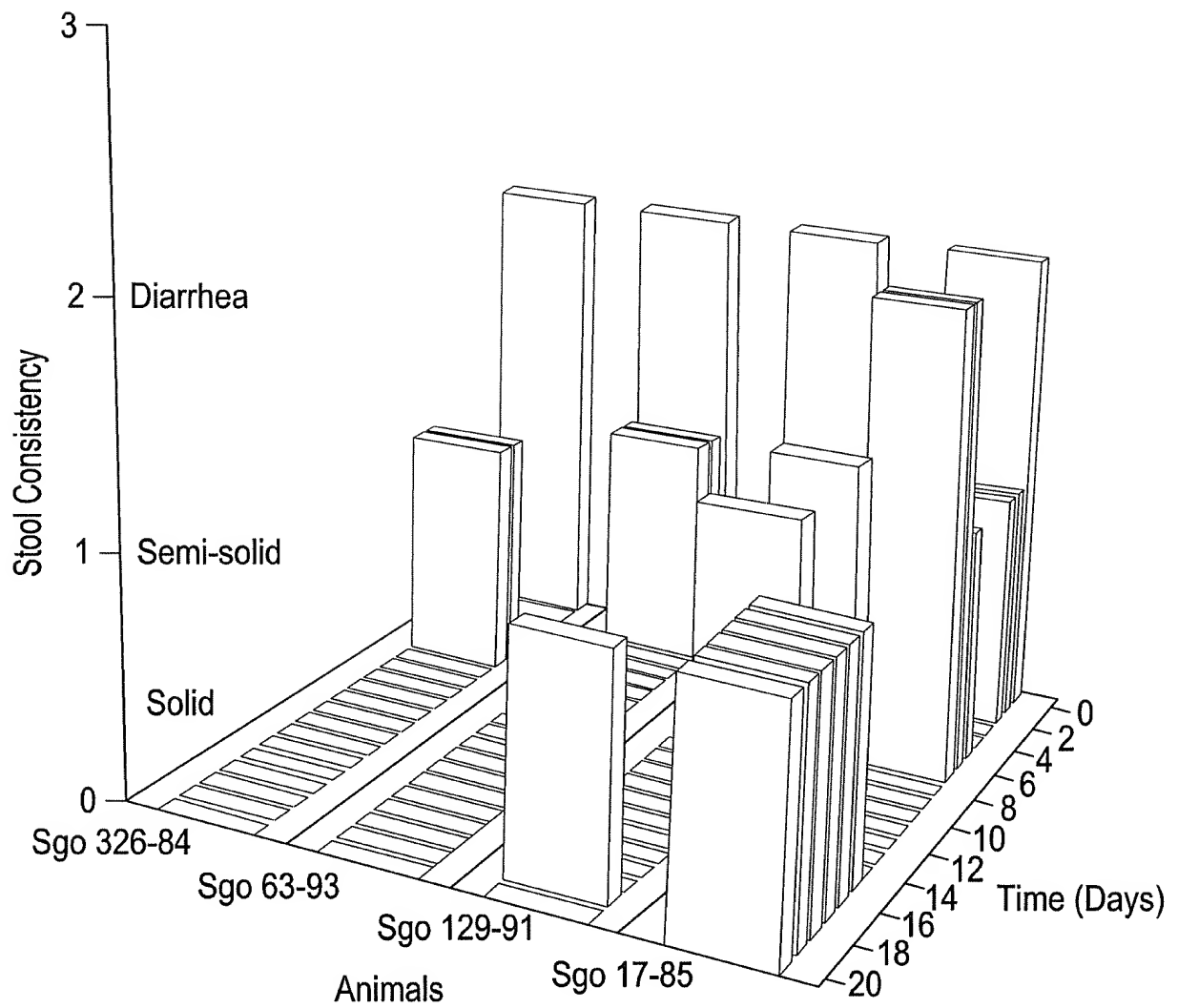




FIG. 12

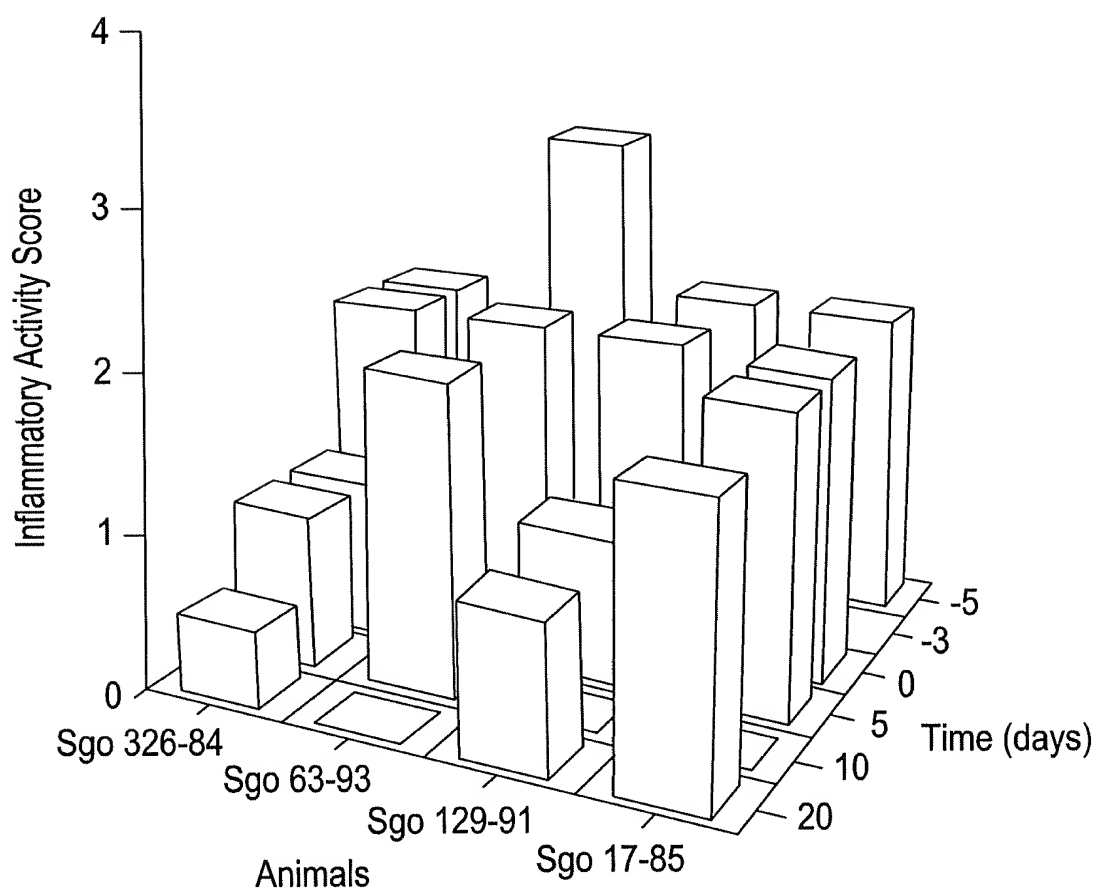
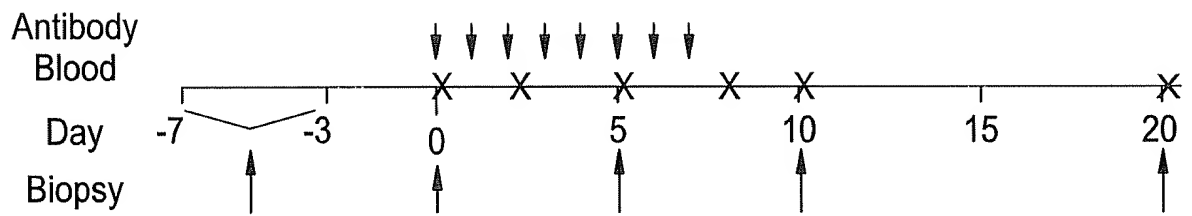
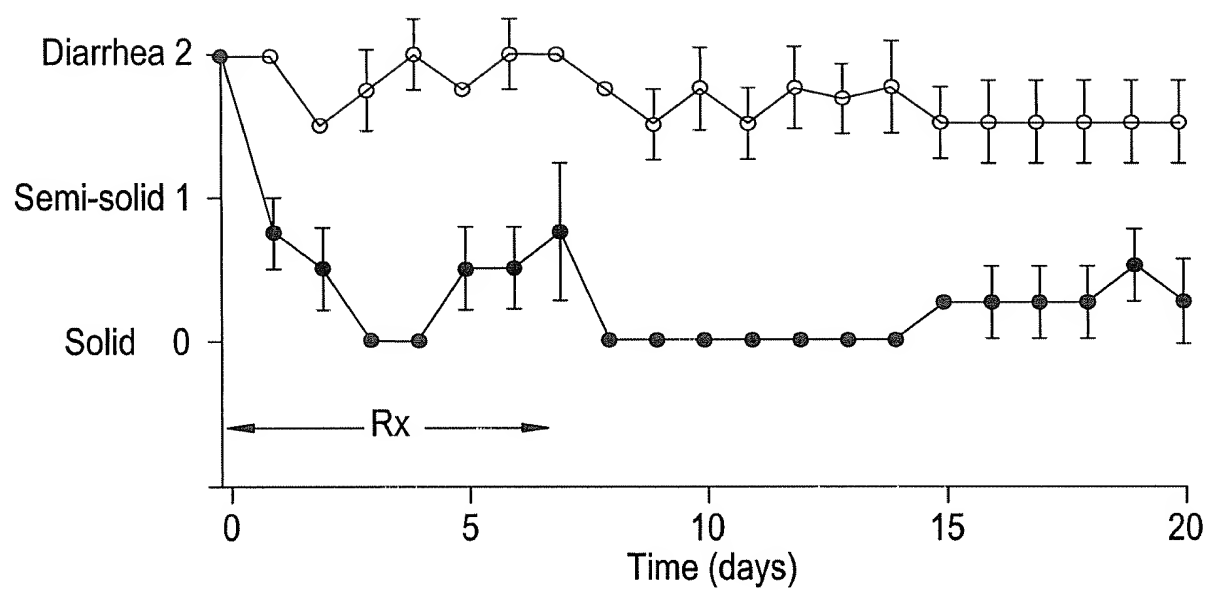


FIG. 13



19/27

FIG. 14



20/27

FIG. 15

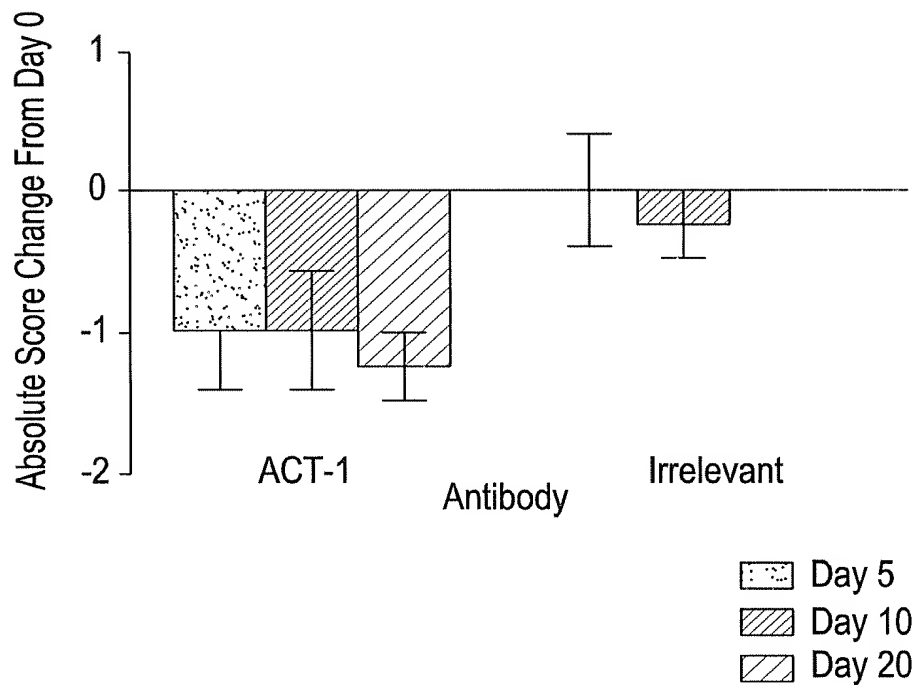


FIG. 16

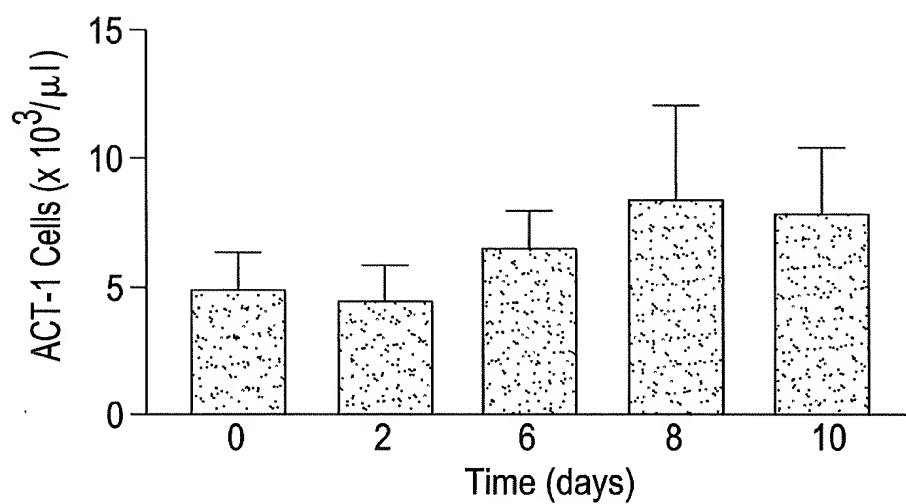


FIG. 17A

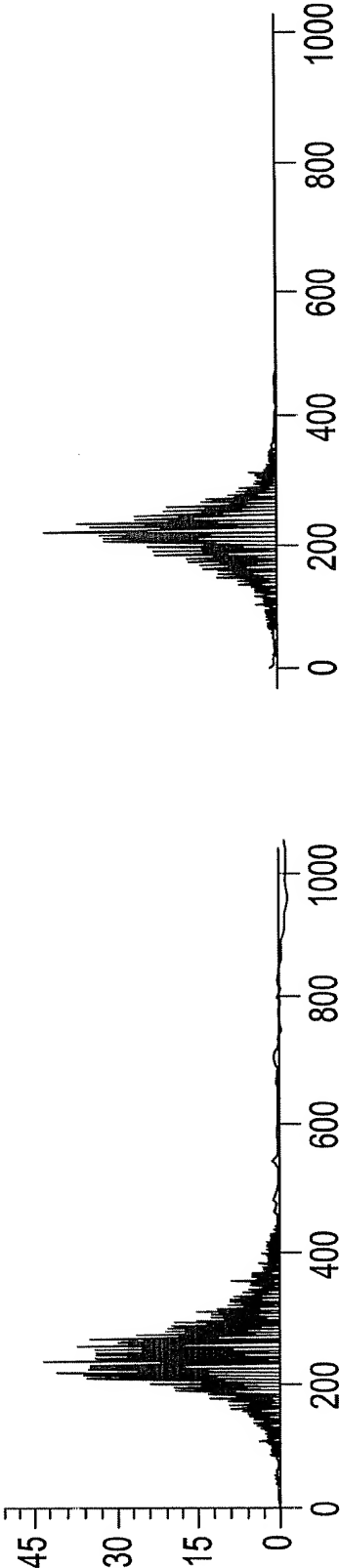


FIG. 17B

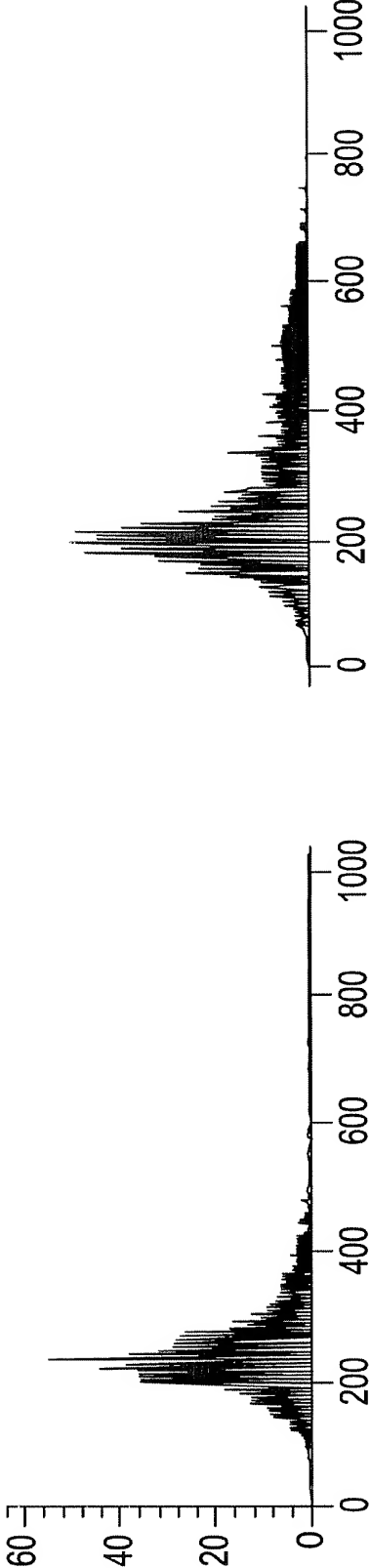


FIG. 17C

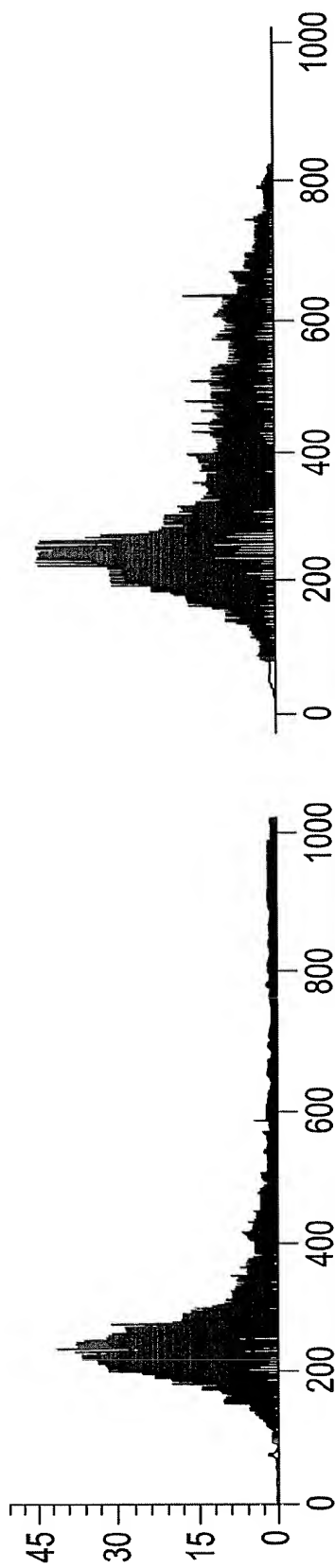


FIG. 17D

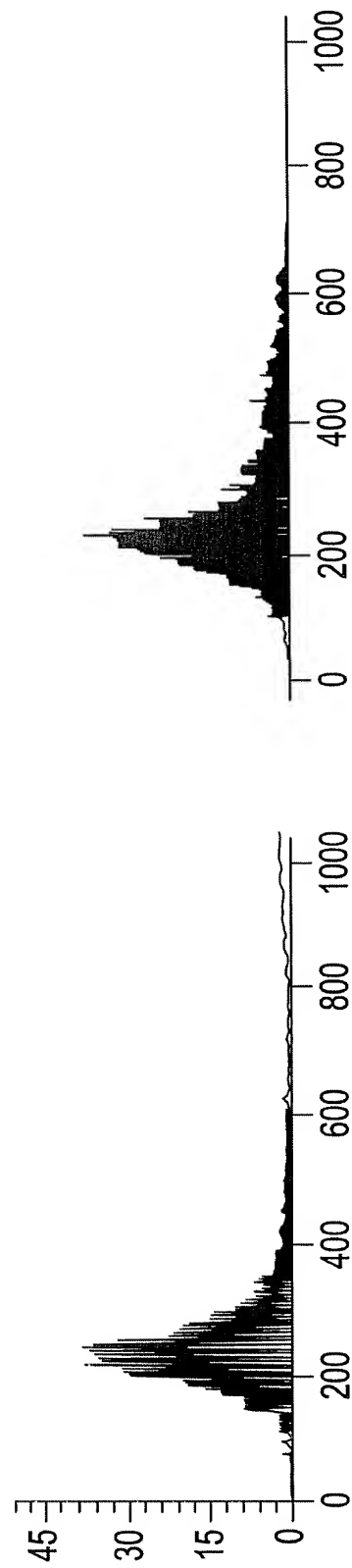
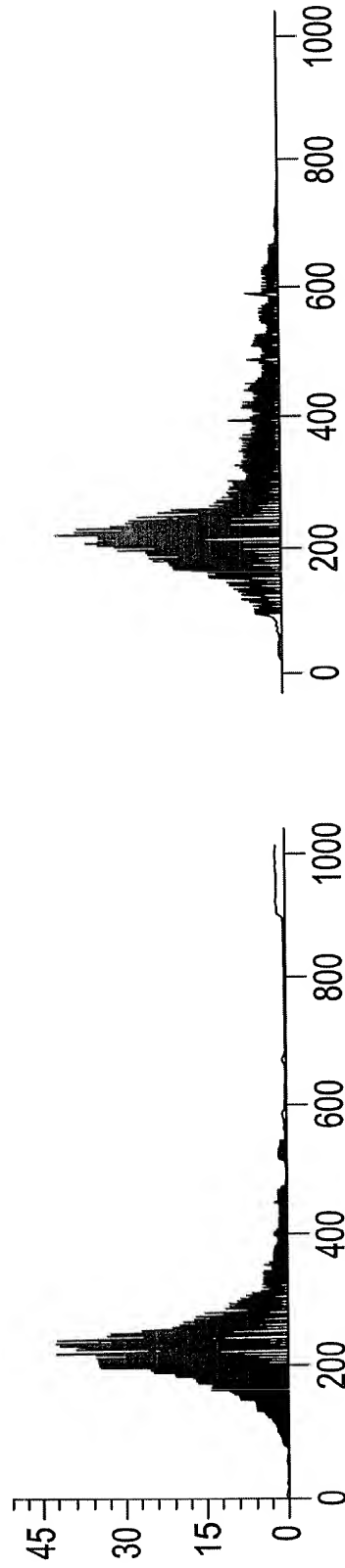


FIG. 17E



24/27

FIG. 18

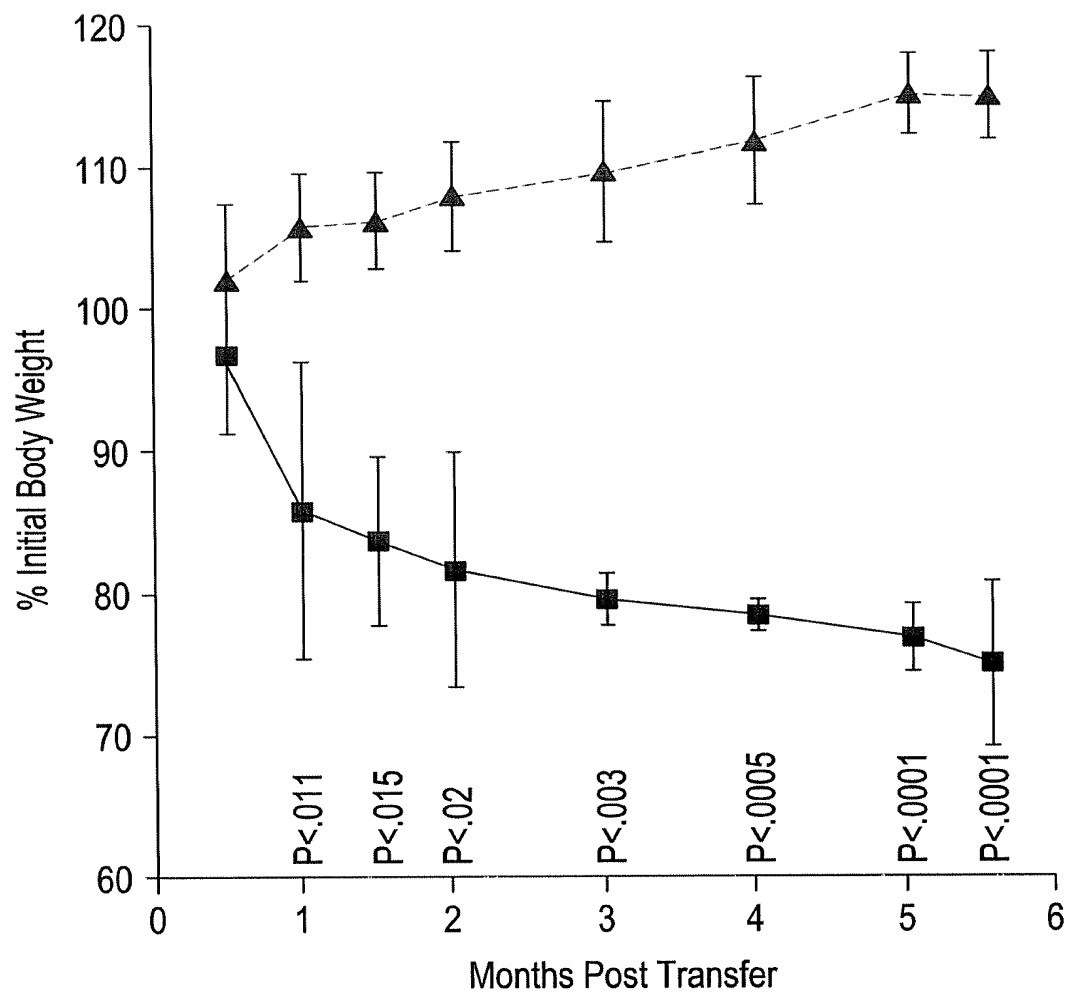




FIG. 19

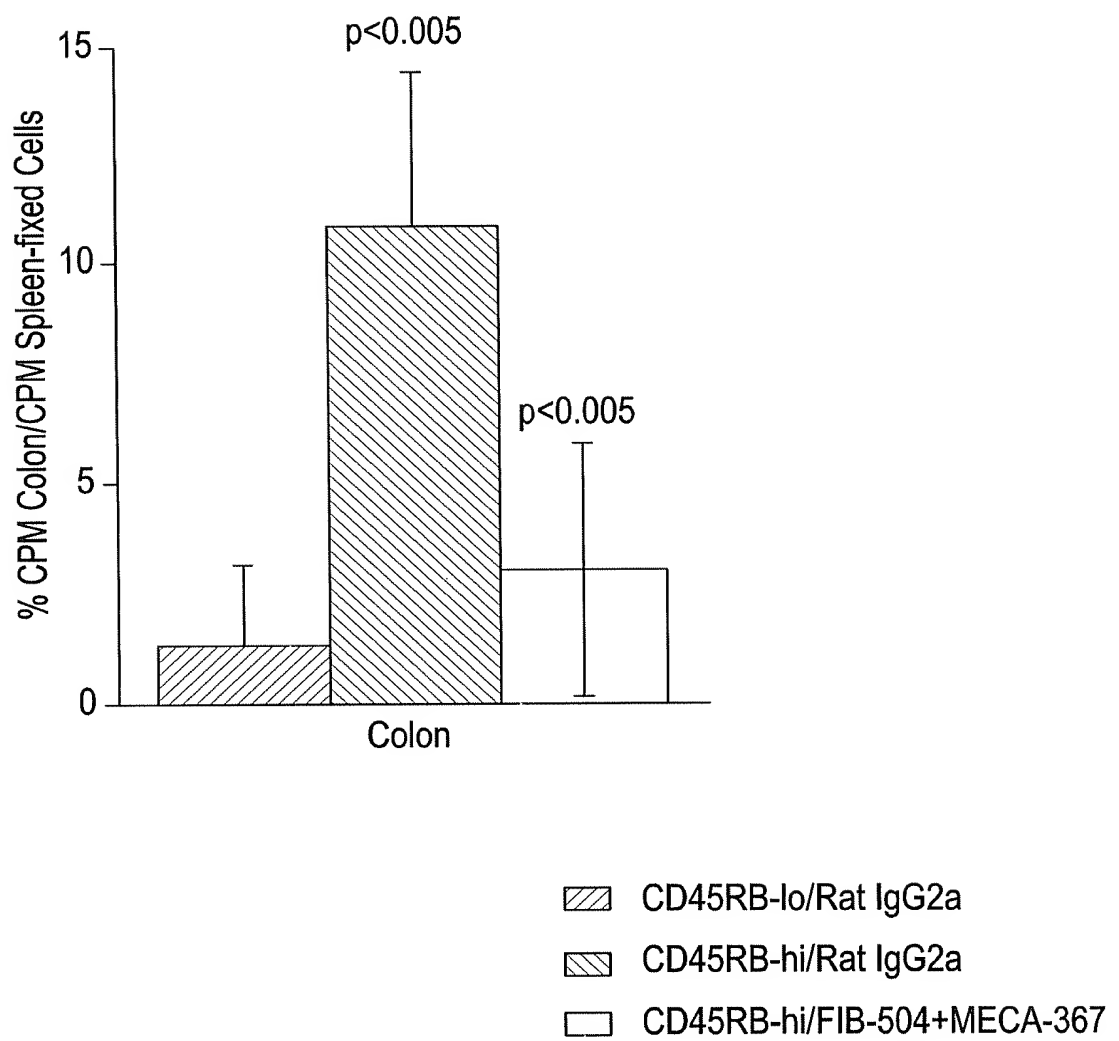


FIG. 20

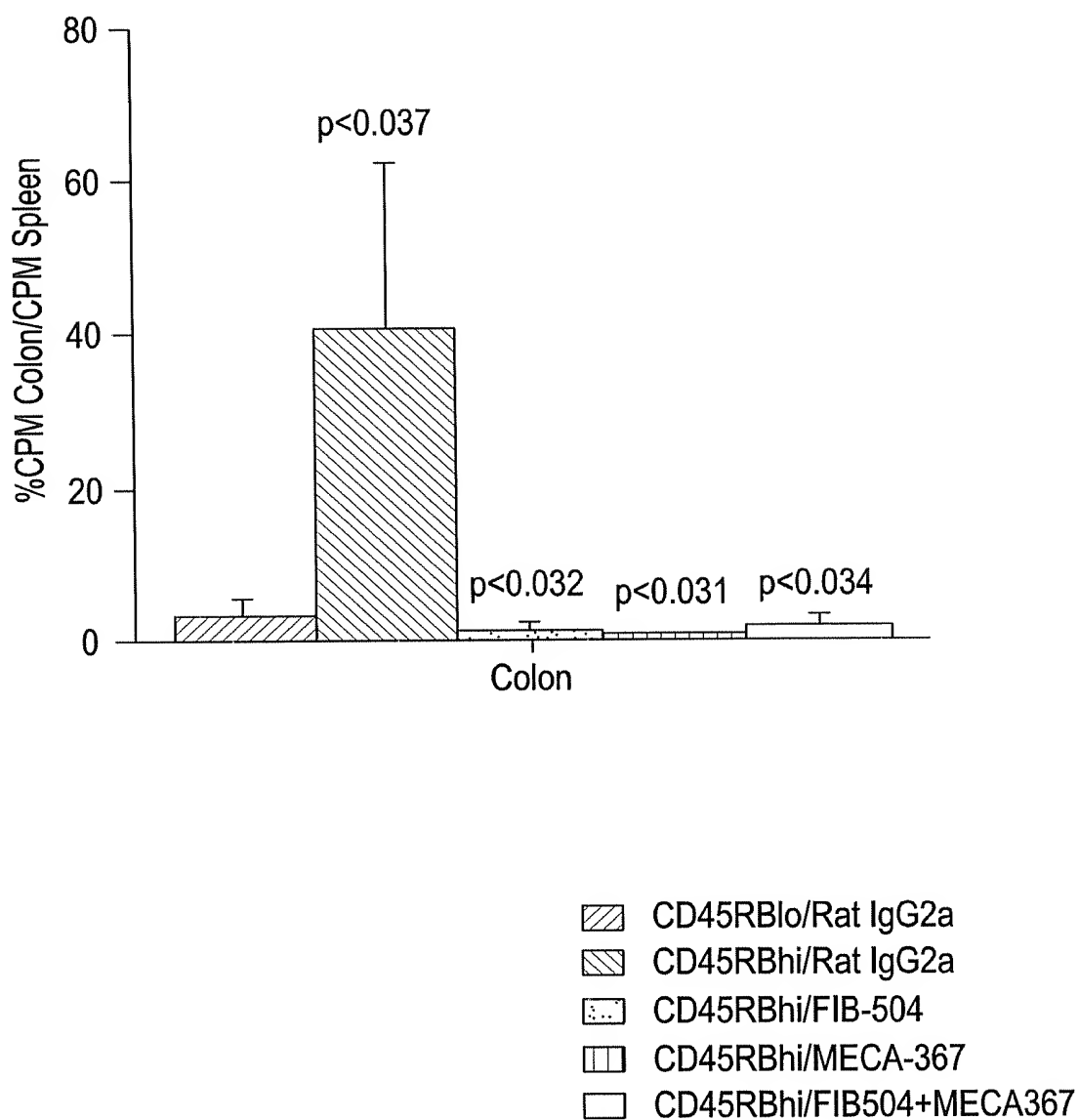


FIG. 21

